Heart of a healthy home™

DVS® Reclaim Home Ventilation System Operating Guide

Enjoy a healthier, more comfortable home

How to operate your DVS® Reclaim home ventilation system

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Introduction

Thank you for choosing a DVS Reclaim home ventilation system for your home. A DVS reclaim ventilation system is able to make a significant difference to you and your family by creating a drier, fresher and healthier home, and improving your comfort and health.

DVS has been supporting New Zealand for over 17 years with quality appliances and we're proud to have our products used every day by many New Zealanders.

All DVS ventilation systems are designed and made here in New Zealand to suit our unique climatic conditions and the needs of New Zealand homeowners. DVS' reputation for innovative ventilation and health and comfort solutions has been built up over many years of research, development and customer feedback.

Your DVS Reclaim ventilation system features a state of the art, fully automated control panel with advanced functions and options, a user-friendly interface, and quality German-made energy efficient fans.

Optional extras such as an automatic summer bypass or a roof space bypass are available as add-on extras.

These operating guidelines contain helpful instructions on how to operate and adjust your system. Although your system has been configured with the airflow and settings individually calibrated to the size of your home, you will also be able to easily fine tune these settings if desired.

Important safety message

The DVS system has been designed (and proven over more than 17 years of actual operation) to be robust, reliable and long-lasting. However some simple annual maintenance is required to ensure your DVS system continues to operate effectively throughout its normal operating life.

Please ensure that you have turned your DVS system off at the control panel (see page 5) before starting any maintenance.

Standard Requirements

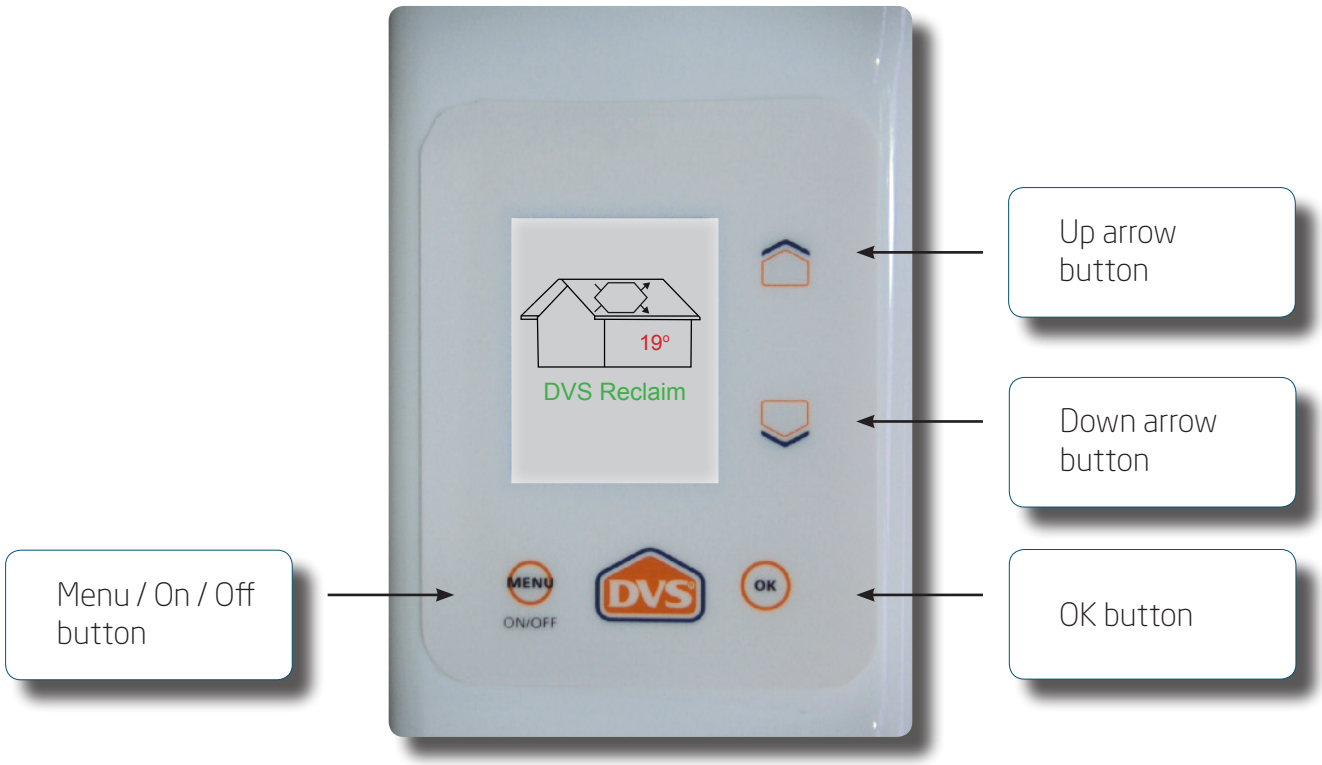
In accordance with NZ Standard AS/NZS 60335.1:2002 7.12

"This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use the appliance safely. Young children should be supervised to ensure that they do not play with the appliance."

The Main Screen

The wall panel normally displays the Main Screen, which shows:

- The current house temperature (in the example below the house is 19ºC).

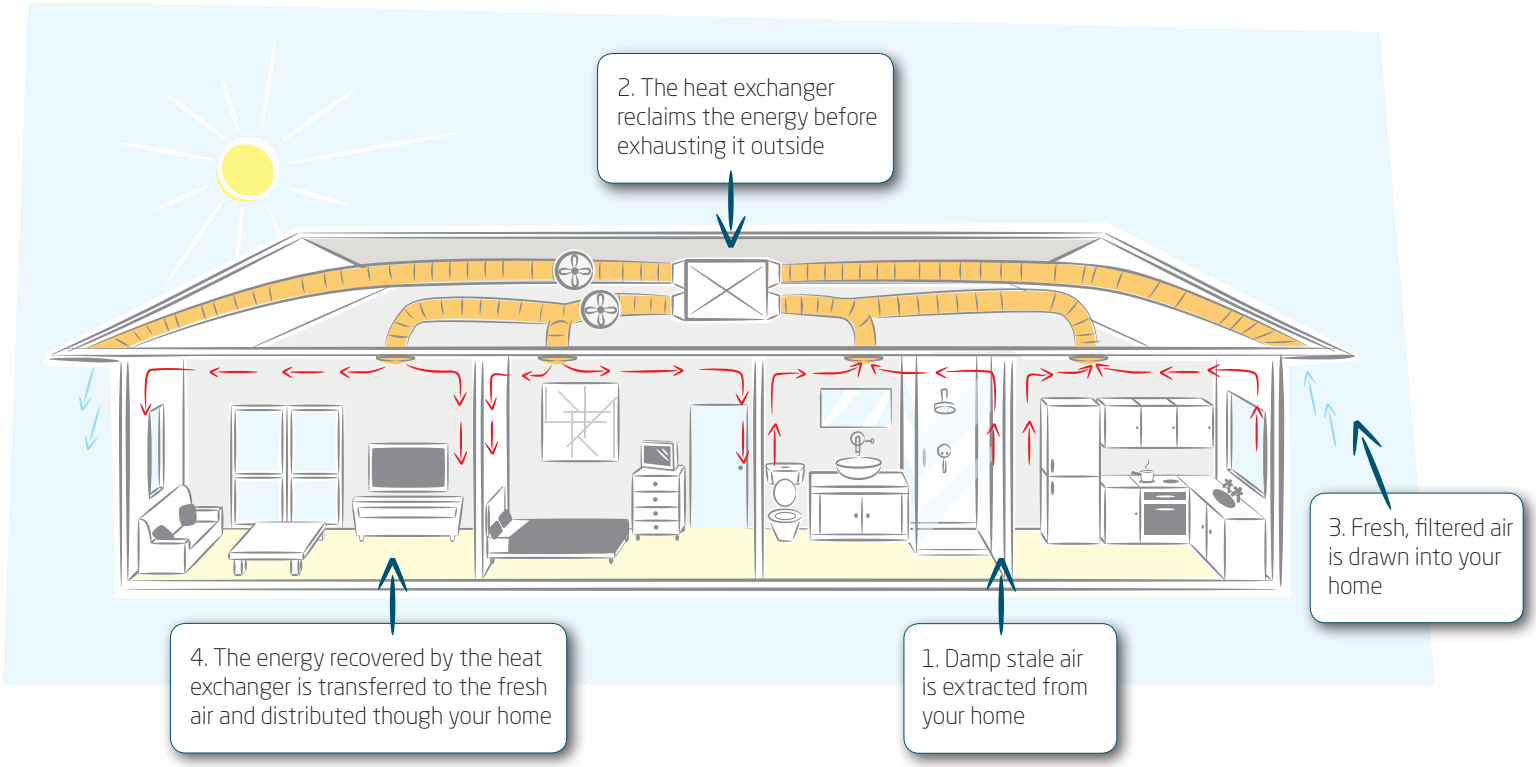


If they are in use, the Main Screen will also show:

- The status of the Summer bypass function (if fitted).
- The status of the roof bypass function (if fitted).
- Whether the filter is due for replacement.

Note: If the LCD display appears dim, press any button on the keypad to activate the backlight.

Operating Principles


2. The heat exchanger reclaims the energy before exhausting it outside
3. Fresh, filtered air is drawn into your home
4. The energy recovered by the heat exchanger is transferred to the fresh air and distributed though your home
1. Damp stale air is extracted from your home

The DVS Reclaim is a whole-house heat exchange ventilation system. Its technology has been especially developed by DVS to improve air quality, reduce moisture and reclaim energy otherwise lost from your home. This means less heating or cooling is required to maintain a comfortable indoor environment.

How does it work?

The DVS Reclaim is located in your roofspace and uses two energy-efficient fans.

1. One fan will effortlessly and quietly extract the damp, stale air out of your home, e.g. from your kitchen and bathroom.
2. As the DVS Reclaim extracts the stale air, the heat exchanger reclaims the energy it contains (usually generated by activities such as cooking, showering and paid heating) before exhausting it outside.
3. The second fan draws a constant supply of filtered, fresh, outdoor air into your home.
4. The energy recovered by the heat exchanger is transferred to this incoming fresh air, warming or cooling it before delivering it to your lounge, bedrooms etc.

In summer, where an air conditioner is at work generating cool air, the DVS Reclaim can recycle this cooled air in the same way it does heated air.

Because the recovered energy is then re-used in the home, less heating or cooling is required to keep your home at the desired temperature. And that equates to big savings – both to your power bill and the environment.

Basic functions

You can make the most common adjustments to your DVS reclaim system from the Main Screen.

Turning your DVS System On or Off

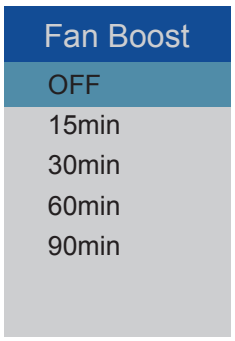
To turn the DVS system on or off, press and hold the Menu button for 5 seconds.
If the system is switched off, the screen will display “SYSTEM STANDBY” and the fan and all accessories will be turned off.
Press and hold the Menu button for 5 seconds to turn the DVS system on again.

Fan Boost Option

Use the Fan Boost option if you want the fan to run at full speed for a set period of time.
This function is useful for clearing the house of extra moisture or smells. Please note that the fan may be noisier at this speed.

To set the length of time for Fan Boost, or to turn it off:

- Press and hold the up arrow for 3 seconds or more. This takes you to the FAN BOOST screen.
- Use the down arrow to select the amount of time you want Fan Boost to run for (15, 30, 60 or 90 minutes), or to turn it OFF.
- Press OK.
- Press the Menu button repeatedly until you return to the Main Screen.



Advanced Functions

More advanced functions on your DVS system are accessed via the Menu button. These include:

- Fan speed
- Roof Space Bypass Operation (if fitted)
- Automatic Summer Bypass (if Fitted)
- Temperature History
- Clock
- Replace Filter
- Diagnostics

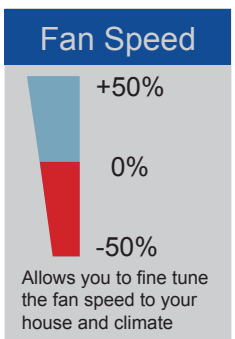
Adjusting the Fan Speed

Your system has been configured so the airflow and settings are individually calibrated to the size of your home and will run at these settings automatically. However, you are able to easily fine tune the fan speed to optimise condensation or climate control to better suit your needs.

Fan speed tuning allows you to adjust the fan speed to a level higher or lower than the pre-set calibrated level (represented by the '0%' setting).

To adjust the fan speed:

- Press the Menu button briefly.
- Use the down arrow to select Fan settings and press OK.
- Use the down arrow to select Fan speed and press OK.
- Use the up or down arrow to change the fan speed (from -50% to +50%).
- Press OK to confirm the fan speed.
- Press the Menu button repeatedly until you return to the Main Screen.



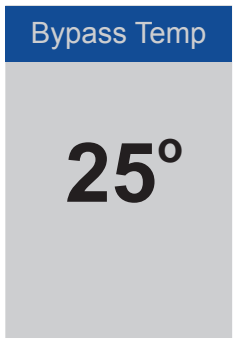
Automatic Summer Bypass (optional extra)

The purpose of an Automatic Summer Bypass is to deliver a continuous supply of fresh filtered air from outside by automatically changing the air source to draw directly from the external vent and bypassing the heat exchanger.

This function will automatically activate once the house temperature exceeds the set bypass temperature and the incoming air is cooler. System fan speed will automatically increase.

To set the bypass temperature:

- Press the Menu button briefly.
- Use the down arrow to select Bypass Temp and press OK.
- Use the up and down arrows to select the temperature, recommended temperature 25 degrees or over).
- Press OK to confirm your selection, then press the Menu button repeatedly until you return to the Main Screen.



The bypass indicator will appear on the main screen once activated.

Note: This is an optional extra and will not appear on the control panel unless installed.

Automatic Summer Bypass Limitations

Whilst the system fan speed doubles, the airflow out of the system will still be relatively limited. The DVS Reclaim is primarily a continuous low flow ventilation system and normal operation is set to one third of an airchange per hour (ie. The air in the room will be changed once every 3 hours). At double flow rates the air will be changed every 1.5 hours.

The summer bypass function is also limited by the outside air temperature. The DVS Reclaim has no additional cooling ability and is not an air conditioning system.

Automatic Roofspace Bypass (optional extra)

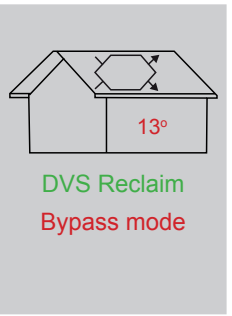
The purpose of the Roofspace bypass is to enable the solar gain available in your roof space air to be reclaimed by the incoming fresh air flow. This is achieved by opening the roofspace bypass to allow the roof space air to mix with the extracted exhaust air from your home. This mixed air is then passed through the heat exchanger resulting in a higher temperature air stream being passed through the core and thus transferring this higher temperature to the incoming fresh air.

Note: the fresh outside air continues to be the air that enters the house. The roof space air is just providing additional heat in the form of solar gain to the exhaust air.

This function will automatically activate once the roofspace temperature exceeds the bypass set temperature and the house temperature is cooler. System fan speed will automatically increase.

To set the bypass temperature:

- Press the Menu button briefly.
- Use the down arrow to select Bypass Temp and press OK.
- Use the up and down arrows to select the temperature, recommended temperature 25 degrees or over).
- Press OK to confirm your selection, then press the Menu button repeatedly until you return to the Main Screen.



The bypass indicator will appear on the main screen once activated.

Note: This is an optional extra and will not appear on the control panel unless installed.

Automatic Roofspace Bypass Limitations

Whilst the system fan speed doubles, the airflow out of the system will still be relatively limited.

The DVS Reclaim is primarily a continuous low flow ventilation system and normal operation is set to one third of an airchange per hour (ie. The air in the room will be changed once every 3 hours). At double flow rates the air will be changed every 1.5 hours.

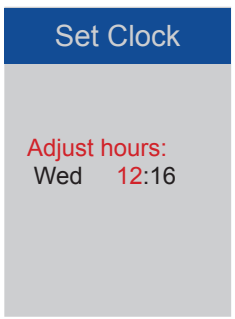
The roofspace bypass function is also limited by the roofspace air temperature. The DVS Reclaim has no additional heating ability and is not a central heating system.

Utilities

Setting the Clock

To set the clock to the correct time on the DVS system:

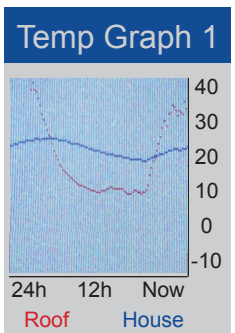
- Press the Menu button briefly.
- Use the down arrow to select Utilities and press OK.
- Use the down arrow to select Set clock and press OK.
- Use the up and down arrows to select the correct day of the week, and press OK.
- Use the up and down arrows to select the correct hour (uses 24 hour clock), and press OK.
- Use the up and down arrows to select the correct minutes, and press OK.



View Temperature History Graphs

You can display a graph showing the past day's and week's temperatures for your house and the fresh air supply after it has passed through the heat exchanger. To access these graphs:

- Press the Menu button briefly.
- Use the down arrow to select Utilities and press OK.
- Use the down arrow to select Temp. graphs and press OK.
- "Temp graph 1" will display on the screen (showing the previous 24 hours).
- Press OK again to display "Temp graph 2", which shows the previous 7 days.
- Press the Menu button



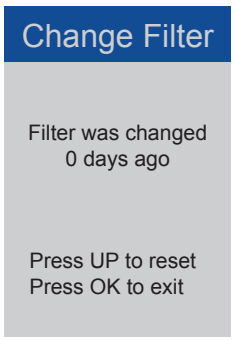
Filter Service

The filter reminder will appear on the Main Screen when the filter service timer has counted down to 0 days.

This is a reminder that your filters should be changed or serviced. Please call DVS on 0800 387387 to arrange for a filter service or replacement filters.

To reset the filter reminder press the up arrow, then OK.

Note: It is recommended that the filters are changed every 12 months in order to ensure proper operation of the fan and in order to prevent build up of dust, pollen and bacteria which could be harmful to your health.



Diagnostics

The diagnostic screen (available under the Utilities menu) displays any errors or faults with your DVS system, as well as current fan speed and RPM (revolutions per minute).

DVS Filters

DVS filters meet international air quality ratings and remove dust, pollen, plant spores and other airborne material from your air supply prior to delivering this into your home.

We recommend that you replace the air filters on your DVS system every 12 months. A blocked air filter can cause poor performance from your DVS and may result in equipment damage or failure that could shorten the life of your DVS system. We supply replacement filters, which can be fitted by yourself, or can be fitted by our service technicians in conjunction with a service check of your DVS system.

Please contact DVS on 0800 387 387 to organise a service technician to do this for you. Alternatively, follow the instructions provided to change the filters yourself.

IMPORTANT INFORMATION

You need to replace your filters every 12 months with genuine DVS® branded filters to maintain correct operation of the system. The 5 Year Parts and Labour Warranty on your DVS® system is dependant on you doing so during its period of validity.

For your safety

Please take special care when climbing into your roof space, and while in the roof space walk only on load-bearing roof beams or trusses. We suggest you ensure another person is in the house or tell a neighbour you are climbing into your roof space so that you can get assistance quickly if you slip or have an accident.

Switch your DVS SYSTEM OFF at the control panel.

Disconnect the DVS Air Handling Unit from the house supply by unplugging the 3-pin plug before servicing or changing the air filters. Use only a dry cloth when cleaning the unit. Do NOT remove, open or attempt to service any DVS equipment while it is connected to the house power supply.

Filter Replacement Instructions

Before you start:

Switch your DVS off at the control panel by holding down the off key. This will put the system into standby.

- Before going into the roof space to change your DVS filter ensure that you have two filters, duct tape, a clean dry cloth, and a good torch or safety lamp.

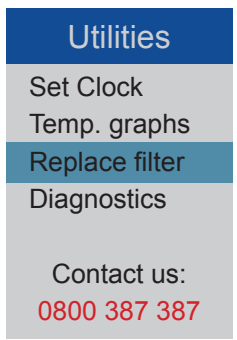
- Remove the existing black duct tape from the ducting at the end closest to the outside air vent (opposite end to the fan).

- Remove the ducting from this end and remove the filter

- Use the dry cloth to wipe any fine dust and debris from the inside of the filter tube

- Place the new filter inside the filter tube
- Reattach the ducting
- Apply duct tape securely to the ducting and filter tube ensuring there are no air leaks.

- Repeat for each filter.



- Turn on your DVS control panel by holding down the on key for 5 seconds

- Reset the replace filter function
  - Press Menu
  - Use the down arrow to select Utilities, press Ok
  - Use the down arrow to select Replace Filter, press Ok
  - Press Up to reset and OK
  - Press menu repeatedly to return to the main screen.

How to get the Best from Your DVS System.

Your DVS Home Ventilation System has been configured, installed and calibrated to best meet your family's needs and the size and layout of your home. However, in order to get the best results it is important that you, the homeowner, follow these General Guidelines.

Maintain adequate home heating to balance cooler airflows during colder seasons, particularly in colder regions of New Zealand.

According to research by the Building Research Association of New Zealand (BRANZ), both adequate heating and continuous ventilation are needed to prevent excess moisture, condensation, mould and mildew occurring in New Zealand homes. If indoor temperatures are not maintained at reasonable levels, even small amounts of moisture inside the home can cause condensation, even in homes which may otherwise be well ventilated by the DVS system. We advise a minimum of 16°C in the occupied rooms for the purpose of condensation control. All air contains water vapour, but it can only hold a limited amount without becoming saturated. The higher the temperature the more it can contain.

Some customers may need to use additional heating to balance the flow of cooler drier air required to adequately control their condensation and dampness. Most customers have found that additional heating in colder months is balanced by less heating required during other times of the year, due to solar heat gain from the roof space on warmer days, and a drier home being easier to heat and requiring less energy than a damp home.

Don't be afraid to adjust and customise your settings to achieve a good balance between condensation control and airflow, especially in colder seasons.

Your DVS ventilation system has been individually configured and calibrated to your home but we also recognise that every home, location and family are different. We have designed the DVS system so you can easily customise and adjust the settings to best meet your needs, changes in the seasons, family circumstances and the weather.

Don't be afraid to 'experiment' with your DVS system by increasing or decreasing the airflow to achieve the best results. In general, the greater the airflow the greater the level of condensation control.

But remember, too much air may cool your home unnecessarily in winter, while too little airflow will not be effective in controlling condensation.

Experiment with your controller to find the right balance for your home, and remember to use additional heating if needed to ensure both a dry and comfortable home.

You might wish to increase the airflow of your DVS system if ...

You have friends or family staying. More showers, cooking and breathing may cause condensation or misting due to higher levels of moisture generated in the home.

You may experience some temporary 'misting' or minor condensation during very cold weather.

You might wish to decrease the airflow of your DVS system if ...

You are concerned about too much cooler air entering your home during colder seasons. Try reducing the airflow a little at a time until you get to the point where misting or condensation starts to appear. The lower the airflow the lower the DVS systems ability to control condensation, so if you turn the system down too far, condensation will occur more frequently.

Keep external doors and windows closed during colder weather to enable the DVS system to gently ventilate your whole home.

The DVS system gently pressurises parts of your home, pushing fresher, drier air into every room. The damp, stale air is sucked out through the exhaust side of the system.

During colder seasons when condensation is a problem, we recommend keeping your external doors and windows closed as much as possible, otherwise the DVS system will be much less effective. You may open doors and windows on warm days if you wish to do so, without noticeably affecting the DVS systems operation.

When using a clothes dryer, showering, bathing or cooking, we suggest you open a window in the relevant room and put the system on boost for a period. Close the window again after you have finished. Ideally, installing a vented extract fan in these 'high moisture' rooms will assist the DVS system to keep your home drier and healthier.

Keep internal doors open, not just slightly ajar, to allow air to flow into all the rooms, especially bedrooms, for effective condensation control.

Closing internal doors prevents air from the DVS system from ventilating those areas, often resulting in continuing condensation problems in those rooms. Doors should therefore be kept open, or at least half open - not just slightly ajar. This is especially true in bedrooms where breathing from sleeping occupants can cause condensation if doors are left closed.

Installing additional ceiling outlets in the affected rooms is an easy way to ensure privacy and solve condensation problems in rooms where people prefer to close doors at night. To discuss this option, please call us on 0800 387 387.

If necessary, slightly open drapes or blinds, or create a gap between the drapes and window frame at night to ensure adequate airflow can reach window surfaces.

In some homes tight fitting roman blinds, shutters, heavy floor-to-ceiling curtains or window pelmets can sometimes make it difficult for the drier air from the DVS system to reach window surfaces.

When windows are 'sealed off' condensation can sometimes occur, particularly during colder weather. The DVS system is usually able to clear any misting or minor condensation once blinds and curtains are opened.

If you believe that your blinds or curtains are causing a problem here are some tips:

- In living areas - open curtains at least a metre wide when you go to bed at night,
- In bedrooms – pull curtains or blinds slightly out from the wall if possible to create a small gap so as to allow some air to reach the windows.

Clean the ceiling outlets twice a year.

In the vast majority of cases, dust around the ceiling diffuser is the result of dust already inside the home being attracted by tiny electrostatic charges that build up on the surface of the ceiling or diffuser as the incoming air brushes past these surfaces. Clean these with a clean dry cloth or a dry brush.

Follow these simple steps to ensure your 5 year warranty remains valid.

- Do not use your ventilation system without filters
- Replace your filters every 12 months
- Ensure all parts are supplied by DVS
- Do not make alterations or modifications to your unit

Recommendations

Home Heating and your DVS system

The DVS system is not a home heating system, although a drier home will improve the effectiveness of whatever heating is used in your home.

Some DVS ventilation system owners take the opportunity when their DVS system is installed to invest in some additional home heating. For example, the optional DVS Air-Warmer can be installed to pre-warm incoming air on cold days or nights and prevent any slight cooling of your home, while ensuring proper ventilation to reduce condensation. Also DVS can provide advice on heating requirements and provide cost effective heater options to compliment your DVS system.

Your consultant may have covered some of the options available from us here at DVS or suggested some proven methods of home heating which are very compatible with the DVS system. Please call us if you would like more information.

Even when no additional heating is installed, many DVS system owners comment that their homes feel warmer with the DVS system installed, with heating costs remaining the same or even decreasing over a full year of operation. This is not because the DVS system is directly heating incoming air, but is due to some or all of the following:

- More even spreading of existing heat throughout the whole home
- Recovery of heat from the exhaust air via the heat exchanger.
- Drier air requiring less energy to heat than moist air to maintain the same temperature

While the DVS system may have an overall positive impact on home heating over a full year, some DVS system owners may find that their homes are cooler during winter months than before the DVS was installed. This is because, in order to control condensation, mould, mildew and dampness problems during colder seasons, the DVS system must continue to bring air from outside into your home, even when the air is cool. The incoming air however is prewarmed by the heat exchanger.

To offset these possible lower temperatures in your home during colder weather, you may need to use more heat, or change the times of day you heat your home. As noted earlier in this section, it is essential to adequately heat and ventilate your home in order to control condensation, and maintain an acceptable comfort level.

Alternatively, you could experiment by reducing the airflow from your DVS system (see page 6). However, reducing the airflow may reduce the DVS systems ability to control your condensation – you will need to find the balance that is right for you.

Un-flued and Bottled Gas Heating

Un-flued and bottled gas heaters generate large volumes of water vapour, often doubling or trebling the total amount of moisture produced in the average home. Continued use of un-flued or bottled gas heaters may prevent the DVS system from being able to completely solve your condensation and other damp problems, although you should notice some improvement. The impact will vary from home to home and between different regions of New Zealand, and will depend on the weather and seasonal temperatures, and the extent to which un-flued heaters are used.

If you are using un-flued gas heaters and continue to have a problem with condensation you may wish to investigate using other forms of heating. Un-flued gas heaters are not a recommended source of heating as they release polluting gases directly into the room, excessive water vapour and have high running costs.

Extract Fans

In addition to installing the DVS system we also recommend fitting externally vented extract fans in rooms generating significant amounts of moisture such as the kitchen, laundry and bathroom.

Externally vented extract fans are now mandatory for all new homes under the Building Code.

Draught Proofing

Draught proofing is one of the cheapest and most efficient ways to save energy in your home and will help to make your DVS system work more effectively.

To draught proof your home you should block up unwanted gaps that let cold air in and warm air out. By saving warm air you'll use less energy to heat your home.

Frequent Questions and Answers

Why is there no air coming out of the ceiling diffuser – even though my DVS system is switched on at the control panel?

If your DVS system is not working, listen for the Air Handling Units or check in the roof space to see whether the Air Handling Units are operating or not. If the Air Handling Units are working, check the filters in the roof space as they may be clogged, preventing the DVS system from delivering sufficient air through the ceiling outlets.

If the filters are not clogged and the DVS system is still not working, please call us on 0800 DVS DVS (0800 387 387).

Why do I continue to get some misting or condensation in some rooms of the house?

This could be related to a variety of reasons:

- Lack of heating in the rooms affected
- Lack of air supply in the rooms affected
- Curtains, blinds or pelmets could be preventing airflow over the windows.

You never want to completely dry out a home as timber and woodwork can shrink causing floors to creak and gaps in staircases, as well as slight cracking of wall / ceiling lining joints to be created etc.

asthma NEW ZEALAND THE LUNG ASSOCIATION

Asthma New Zealand has officially recognised DVS Ventilation Systems as being beneficial to people who suffer respiratory illnesses.

A percentage of every unit sold is donated to Asthma New Zealand

Research from Massey University has also proven the DVS® ventilation systems to reduce the mould and fungal spores that can be triggers for people with asthma.

I no longer have any condensation, but why does my house seem cooler during colder weather?

You may need to use more home heating during colder months to offset the cooler and drier air needed to control condensation. You may also be able to turn your DVS system down slightly to reduce the airflow when the supply air is cooler than the house.

Why is there dust on the ceiling outlet or on the ceiling near the outlet?

This sometimes happens, usually as a result of dust already in the home being attracted by static electricity due to the drier air from the DVS system brushing against the outlet or ceiling surfaces, and by the flow of air within the region of the diffuser. Clean the surfaces with a clean dry cloth or use a dry brush.

If the problem persists, check your fresh air supply filter to ensure it hasn't become clogged and check the ducting in your roof space for any damage. Occasionally tradespersons or other people working in your roof cavity can accidentally damage the ducting, allowing some dust from the roof cavity to enter your home, although this is not common.

Why do we sometimes get the smell of smoke from wood or coal fires coming into the house via the system?

This can occur, particularly on still nights, when smoke from domestic fires is in the air and is drawn into the system. You may turn your system off until the smoke around your home clears.

Why am I continuing to get condensation even though my system is on full?

There are two ways of controlling condensation. Ventilation and heating. Ensure that you have enough heating so that the air temperature is at a level that allows it to hold more moisture.

Why can I hear noises from the DVS system Air Handling Unit during the day and / or night?

It is possible that in the dead of night you may be able to hear a very faint 'hum' from your DVS system from certain rooms in your house. It is also possible that you may hear it operating during the day when the system is in boost or bypass mode. If the DVS system is making 'clunking' or 'clicking' noises or is very noisy it may indicate that an Air Handling Unit is damaged or worn. Please contact us on 0800 DVS DVS (0800 387 387).

Why do I seem to get cooking and other smells coming back into the house?

Venting extract fans to the outside is good practice and the presence of smells is not due to the operation of the DVS reclaim. If extract fans or rangehoods are vented into the roof cavity, please arrange a tradesperson to direct these outside.

DVS® offer a wide range of products

Ventilation

DVS, is the oldest established ventilation company in the country. A wide range of systems are available to remove the stale, moisture-laden air from your home and replace it with fresh, filtered air. As a result your home is warmer, drier and healthier.

Proudly an official Asthma NZ partner, the DVS system has been proven to reduce the mould and fungal spores that can be triggers for people with Asthma. In addition, DVS air filters can virtually eliminate the pollens and other airborne particles and irritants that can be so devastating for people who suffer from respiratory illnesses.

Heat Pumps

A Fujitsu Heat Pump from DVS is today's safe, easy and economical way to keep individual rooms or your whole home comfortable all year round. You'll be warm and cosy in winter, and cool and refreshed in summer. The award winning Fujitsu heat pumps also have Asthma NZ approval.

Insulation

We sell Pink® Batts® insulation to help reduce heat loss in winter and heat gain in summer. PinkFit® is the preferred installer of Pink® Batts® and will guarantee the Pink® Batts® insulation has been properly installed.

Pink® Batts® is accepted by the Asthma and Respiratory Foundation of New Zealand's Sensitive Choice programme and is therefore the perfect solution if you or your family members suffer from Asthma or respiratory illnesses.

More Heating and Cooling Options

Along with Heat Pumps, DVS provide a wide range of flued gas heaters, panel heaters, solar ventilation and tempervents. For more information, contact us on 0800 387 387.

Heart of a healthy home™

0800 387 387

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